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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/205,119	12/03/1998	CHARLES A. ELDERING	8887-3004	8185

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TECHNOLOGY, PATENTS AND LICENSING, INC./PRIME
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PIPERSVILLE, PA 18947

EXAMINER

LONSBERRY, HUNTER B

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p>09/205,119</p>	<p>Applicant(s)</p> <p>ELDERING ET AL.</p>	
	<p>Examiner</p> <p>Hunter B. Lonsberry</p>	<p>Art Unit</p> <p>2611</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46,48-52,54-60,62-65 and 67-81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46,48-52,54-60,62-65 and 67-81 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/23/04, 8/9/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

1) Applicant argues that Tuzhilin's rules do not associate subscriber interactions/reactions with demographics and are not used to generate a demographic profile of the subscriber as required by the claims (response page 13).

Regarding applicants argument 1, in the current office action, Alexander is relied upon for monitoring a users interactions with advertisements and programs, utilizing rules to associate those interactions with demographic characteristics. Alexander does not disclose the use of heuristic rules. Tuzhilin is relied upon for teaching the use of heuristic rules in order to predict subscriber characteristics.

2) Applicant argues that Alexander has no teaching or suggestion of rules that associate subscriber interactions to advertisements to demographics and using these rules to generate a demographic profile (response page 14).

Regarding applicants argument, Alexander discloses the use of a viewer profile analysis program which stores user interactions and performs data processing (column 29, lines 14-55). Over time and with enough information, the profile program learns to recognize a finer breakdown about the various types of data collected and then uses the learned information to describe a viewer preference (column 29, lines 56-60) and

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determines viewer characteristics which include demographic characteristics (column 30, lines 17-37), thus the profiling program includes a set of rules which relate viewer interactions with viewer characteristics.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 73 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,177,931 to Alexander.

Regarding claim 73, Alexander discloses a method for monitoring a subscribers interactions with advertisements in order to generate a subscriber profile, the method comprising:

monitoring subscriber interactions to advertisements presented (column 28, lines 56-59);

retrieving information corresponding to the advertisements presented, wherein the information includes descriptions of at least one aspect of the advertisements presented (column 28, lines 30-44),

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creating a first representation (programs watched, ads watched, channel changes, volume changes which constitute the raw viewer profile) of the subscriber based on the subscriber interactions and the information (column 28, lines 30-44, column 29, 14-55),

retrieving a set of rules (viewer profile analysis program, column 29, lines 31-35) as associated with at least a subset of the first representation, wherein the set of rules relates at least one aspect of the first representation to at least one demographic parameter (column 30, lines 18-29), and

applying the set of rules (by correlating interests in products, and programs with viewer preferences in order to characterize user interests and demographic characteristics) to the first representation in order to generate the subscriber profile (viewer characteristics), wherein the subscriber profile defines at least a second representation of the subscriber (column 30, lines 30-37).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 46, 48-52, 54-60, 62-65, 67-72 and 74-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,177,931 to Alexander in view of U.S. Patent 6,236,978 to Tuzhilin.

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Regarding claim 46, Alexander discloses a method for monitoring a subscribers interactions with advertisements in order to generate a subscriber profile, the method comprising:

Monitoring subscriber interactions to advertisements presented (column 28, lines 56-59);

Using rules to associate subscriber interactions (volume and channel changes) to demographic characteristics (as a users marital status, number of children, age) about the subscriber (column 29, lines 14-21, 38-68, column 30, lines 18-37),

Applying rules to the subscriber interactions in order to generate the subscriber profile, wherein the subscriber profile identifies demographic characteristics about the subscriber (column 29, lines 14-21, 38-68, column 30, lines 18-37), additionally, the profile may be reported for marketing opportunities (column 33, lines 8-16) or for targeted advertising (column 34, lines 10-25).

Alexander fails to disclose the use of heuristic rules, but does disclose characterizing likely viewer characteristics.

Tuzhilin discloses a system which utilizes a number heuristic rules to create a dynamic consumer profile, which tracks user interactions and traits; the system then estimates a users future needs as well as which products a user is most likely to purchase, the rules are retrieved and generated in order to determine the dynamic profile, for example Tuzhilin utilizes a rule which is applied to a group of men, (IF Sex="Male" and Shopping_time="evening" and Day_of_week="weekday" and

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Purchase="Diapers" THEN Purchase="beer".), this rule is not specific to any one individual, but instead is applied to a group of users or may be applied to a customer record based upon a number of data point, in this particular example, the data points, male, shopping time and first purchase are inserted into the heuristic rule, and the trait identified is that the user would also buy beer (Figures 4 and 6, column 3, line 58-column 4, line 29, column 5, line 47-column 6, line 44, column 8, line 20-47, column 11, lines 42-66).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the rules and profiling system of Alexander to utilize the heuristic rules of Tuzhilin, to more accurately profile a subscriber in order to present advertisements which would be of more interest to a user.

Regarding claims 48-49, Alexander discloses that information associated with the advertisement is retrieved (column 28, lines 33-44) and that rules are applied order to generate the subscriber profile which defines traits about a user (column 29, lines 14-21, 38-68, column 30, lines 18-37) such as whether a user is interested in buying a car or appliance, or favorite sports team (column 29, lines 60-68).

Tuzhilin discloses the use of heuristic rules.

Regarding claim 50, Tuzhilin discloses that the rules are probabilistic (column 4, line 30-column 5, line 45).

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Regarding claim 51, Alexander discloses the profile is probabilistic in nature (column 30, lines 30-37).

Regarding claim 52, Alexander discloses a method for monitoring a subscribers interactions with advertisements in order to generate a subscriber profile, the method comprising:

Monitoring subscriber interactions to advertisements presented (column 28, lines 56-59);

Using rules to predict demographic characteristics (as a users martial status, number of children, age) about the subscriber (column 29, lines 14-21, 38-68, column 30, lines 18-37),

Applying rules to the subscriber interactions in order to generate the subscriber profile, wherein the subscriber profile predicts demographic characteristics about the subscriber (column 29, lines 14-21, 38-68, column 30, lines 18-37), additionally, the profile may be reported for marketing opportunities (column 33, lines 8-16) or for targeted advertising (column 34, lines 10-25).

Alexander fails to disclose the use of heuristic rules, but does disclose characterizing likely viewer characteristics.

Tuzhilin discloses a system which utilizes a number heuristic rules to create a dynamic consumer profile, which tracks user interactions and traits; the system then estimates a users future needs as well as which products a user is most likely to purchase, the rules are retrieved and generated in order to determine the dynamic

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profile, for example Tuzhilin utilizes a rule which is applied to a group of men, (IF Sex="Male" and Shopping_time="evening" and Day_of_week="weekday" and Purchase="Diapers" THEN Purchase="beer".), this rule is not specific to any one individual, but instead is applied to a group of users or may be applied to a customer record based upon a number of data point, in this particular example, the data points, male, shopping time and first purchase are inserted into the heuristic rule, and the trait identified is that the user would also buy beer (Figures 4 and 6, column 3, line 58-column 4, line 29, column 5, line 47-column 6, line 44, column 8, line 20-47, column 11, lines 42-66).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the rules and profiling system of Alexander to utilize the heuristic rules of Tuzhilin, to more accurately profile a subscriber in order to present advertisements which would be of more interest to a user.

Regarding claim 54, Alexander discloses determining whether a user is interested in buying a car or appliance (column 29, lines 14-21, 38-68, column 30, lines 18-37).

Tuzhilin discloses that the rules predict product interest characteristics about the subscriber (column 13, lines 38-column 14, line 14).

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Regarding claim 55, Tuzhilin discloses that the profile identifies demographic and product interest characteristics of a subscriber such as age or past purchasing history (column 3, lines 31-50).

Regarding claims 56-59, Alexander discloses that the user's EPG will monitor channel changes, and the programming displayed on the channel changed too, identification of advertisements on screen, volume changes, whether or not a user changed a channel or not and the time of the channel change (column 28, lines 13-59).

Regarding claims 60 and 71-72, Alexander discloses a method for monitoring a subscribers interactions with advertisements in order to generate a subscriber profile, the method comprising:

Monitoring subscriber interactions to advertisements presented (column 28, lines 56-59);

Processing the subscriber interactions in order to define traits (such as favorite sports team, column 29, lines 60-68) associated with the subscriber (column 29, lines 14-21, 38-68, column 30, lines 18-37),

Applying rules to the traits in order to generate the subscriber profile, wherein the subscriber profile predicts demographic characteristics about the subscriber (column 29, lines 14-21, 38-68, column 30, lines 18-37), additionally, the profile may be reported for marketing opportunities (column 33, lines 8-16) or for targeted advertising (column 34, lines 10-25).

Alexander fails to disclose the use of heuristic rules, but does disclose characterizing likely viewer characteristics.

Tuzhilin discloses a system which utilizes a number heuristic rules to create a dynamic consumer profile, which tracks user interactions and traits; the system then estimates a users future needs as well as which products a user is most likely to purchase, the rules are retrieved and generated in order to determine the dynamic profile, for example Tuzhilin utilizes a rule which is applied to a group of men, (IF Sex="Male" and Shopping_time="evening" and Day_of_week="weekday" and Purchase="Diapers" THEN Purchase="beer".), this rule is not specific to any one individual, but instead is applied to a group of users or may be applied to a customer record based upon a number of data point, in this particular example, the data points, male, shopping time and first purchase are inserted into the heuristic rule, and the trait identified is that the user would also buy beer (Figures 4 and 6, column 3, line 58-column 4, line 29, column 5, line 47-column 6, line 44, column 8, line 20-47, column 11, lines 42-66).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the rules and profiling system of Alexander to utilize the heuristic rules of Tuzhilin, to more accurately profile a subscriber in order to present advertisements which would be of more interest to a user.

Regarding claims 62-64, Alexander discloses that processing includes aggregating the subscriber interactions from a single or multiple sessions to profile a

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user and that it may be processed in real time, or may be captured on an ongoing basis (column 29, lines 14-30).

Tuzhilin discloses that subscriber's interactions are aggregated via their purchase history (column 13, line 38-column 14, line 14).

Regarding claim 65, Alexander discloses that traits associated with subscriber interactions do not identify specific subscriber interactions, for example an absence of interaction may be recorded and processed (column 28, lines 53-57, column 29, lines 31-68).

Regarding claims 67-70, Alexander discloses that the user's EPG will monitor channel changes, and the programming displayed on the channel changed too, identification of advertisements on screen, volume changes, whether or not a user changed a channel or not and the time of the channel change (column 28, lines 13-59), this information is utilized to define trails about the user (column 29, lines 31-55, column 30, lines 17-37).

Regarding claim 74, Alexander discloses a method for monitoring a subscribers interactions with advertisements in order to generate a subscriber profile, the method comprising:

Monitoring subscriber interactions to advertisements presented (column 28, lines 56-59), wherein the monitored advertisement that includes product information (column

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28, lines 33-44) and wherein the monitored interaction data includes channel and volume changes (column 28, lines 44-57);

Processing the subscriber interactions via rules, wherein the rules associate the subscriber's interactions with the advertisements to demographic characteristics (age, martial status, column 29, lines 14-21, 38-68, column 30, lines 18-37),

Applying rules to the interaction data to generate a demographic profile (column 29, lines 14-21, 38-68, column 30, lines 18-37), additionally, the profile may be reported for marketing opportunities (column 33, lines 8-16) or for targeted advertising (column 34, lines 10-25).

Alexander fails to disclose the use of heuristic rules, but does disclose characterizing likely viewer characteristics.

Tuzhilin discloses a system which utilizes a number heuristic rules to create a dynamic consumer profile, which tracks user interactions and traits; the system then estimates a users future needs as well as which products a user is most likely to purchase, the rules are retrieved and generated in order to determine the dynamic profile, for example Tuzhilin utilizes a rule which is applied to a group of men, (IF Sex="Male" and Shopping_time="evening" and Day_of_week="weekday" and Purchase="Diapers" THEN Purchase="beer".), this rule is not specific to any one individual, but instead is applied to a group of users or may be applied to a customer record based upon a number of data point, in this particular example, the data points, male, shopping time and first purchase are inserted into the heuristic rule, and the trait identified is that the user would also buy beer (Figures 4 and 6, column 3, line 58-

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column 4, line 29, column 5, line 47-column 6, line 44, column 8, line 20-47, column 11, lines 42-66).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the rules and profiling system of Alexander to utilize the heuristic rules of Tuzhilin, to more accurately profile a subscriber in order to present advertisements which would be of more interest to a user.

Regarding claim 75, Alexander discloses that the EPG records volume and channel changes, as well as record requests during advertisements and programs (column 28, lines 30-59) as well as the name of the program or advertisement in which the volume/channel change took place.

Regarding claims 76 and 79, Alexander discloses a method for monitoring a subscribers interactions with advertisements in order to generate a subscriber profile, the method comprising:

Gathering information about advertisements presented to a subscriber including product information (column 28, lines 33-59)

Monitoring subscriber interactions to advertisements presented (column 28, lines 56-59), wherein the monitored interaction data includes channel and volume changes (column 28, lines 44-57);

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Processing the monitored subscriber interactions and gathered information to generate interaction data wherein the interaction data includes information regarding if the advertisements were watched or skipped (column 28, lines 55-58)

Processing the subscriber interactions via rules, wherein the rules associate the subscriber's interactions with the advertisements to demographic characteristics (age, marital status, column 29, lines 14-21, 38-68, column 30, lines 18-37),

Applying rules to the interaction data to generate a demographic profile (column 29, lines 14-21, 38-68, column 30, lines 18-37), additionally, the profile may be reported for marketing opportunities (column 33, lines 8-16) or for targeted advertising (column 34, lines 10-25).

Alexander fails to disclose the use of heuristic rules, but does disclose characterizing likely viewer characteristics.

Tuzhilin discloses a system which utilizes a number heuristic rules to create a dynamic consumer profile, which tracks user interactions and traits; the system then estimates a users future needs as well as which products a user is most likely to purchase, the rules are retrieved and generated in order to determine the dynamic profile, for example Tuzhilin utilizes a rule which is applied to a group of men, (IF Sex="Male" and Shopping_time="evening" and Day_of_week="weekday" and Purchase="Diapers" THEN Purchase="beer".), this rule is not specific to any one individual, but instead is applied to a group of users or may be applied to a customer record based upon a number of data point, in this particular example, the data points, male, shopping time and first purchase are inserted into the heuristic rule, and the trait

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identified is that the user would also buy beer (Figures 4 and 6, column 3, line 58-column 4, line 29, column 5, line 47-column 6, line 44, column 8, line 20-47, column 11, lines 42-66).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the rules and profiling system of Alexander to utilize the heuristic rules of Tuzhilin, to more accurately profile a subscriber in order to present advertisements which would be of more interest to a user.

Regarding claim 77, Tuzhilin discloses that the rules are probabilistic (column 4, line 30-column 5, line 45).

Regarding claim 78, Alexander discloses the profile is probabilistic in nature (column 30, lines 30-37).

Regarding claim 80, Alexander discloses that the demographics include chronological age (column 30, lines 29-31).

Regarding claim 81, Alexander discloses that the subscriber demographics are assigned probabilities (column 30, lines 39-37).

Conclusion

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5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 4,646,145 to Percy: Television Viewer Reaction Determining Systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hunter B. Lonsberry whose telephone number is 703-305-3234. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on 703-305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HBL


CHRIS GRANT
PRIMARY EXAMINER